The Texas Commission on Environmental Quality (TCEQ, agency, or commission) proposes to amend §285.80; the repeal of §285.81; and new §285.81.

Background and Summary of the Factual Basis for the Proposed Rules

House Bill (HB or bill) 1902, 84th Texas Legislature (2015), amended Texas Health and Safety Code (THSC), Chapters 341 and 366, and Texas Water Code (TWC), Chapter 26, in relation to the use of graywater and alternative onsite water. The bill requires TCEQ to develop standards to allow the reuse of graywater for toilet and urinal flushing.

Additionally, the bill creates a new regulatory classification for "alternative onsite water" which the bill defines as "rainwater, air-conditioning condensate, foundation drain water, storm water, cooling tower blowdown, swimming pool backwash and drain water, reverse osmosis reject water, or any other source of water considered appropriate by the commission." The bill directs TCEQ to develop similar standards for the reuse of this new source of water similar to graywater.

The bill provides authority to TCEQ to adopt and implement rules for the inspection and annual testing of graywater and alternative onsite water systems.

The bill allows an adjustment in the drainfield size of an on-site sewage facility (OSSF) if used in conjunction with a graywater reuse system.

Lastly, the bill requires TCEQ to develop a regulatory guidance manual to explain the

graywater and alternative onsite water regulations.

The bill requires amendments to 30 TAC Chapter 210, Use of Reclaimed Water, and Chapter 285. The proposed rules allow for a reduction in the OSSF drainfield size if the OSSF is used in conjunction with a graywater reuse system, move all graywater reuse to Chapter 210, authorize toilet and urinal flushing as an additional reuse of graywater, authorize the reuse of alternative onsite water, establish uses of and treatment standards for alternative onsite water similar to graywater, incorporate nationally recognized treatment standards for graywater and alternative onsite water when used for toilet and urinal flushing, and revise bacteria limits from fecal coliform to *Escherichia coli (E. coli)*.

HB 1902 retains the existing prohibition on the commission requiring a permit for the residential use of less than 400 gallons of graywater, and adds use of less than 400 gallons of alternative onsite water to the prohibition.

Because TCEQ does not issue permits for graywater and alternative onsite water reuse systems, the proposed rules do not include an inspection or testing program for these systems.

A regulatory guidance manual to explain the graywater and alternative onsite water regulations will be developed after adoption of this rulemaking.

A corresponding rulemaking is published in this issue of the *Texas Register* concerning

Chapter 210, Subchapter F, Use of Graywater Systems.

Section by Section Discussion

§285.80, General Requirements

The proposed rule adds language to use terms for graywater reuse systems and combined reuse systems that are consistent with the proposed amendments to Chapter 210, Subchapter F, in a concurrent rulemaking.

Proposed §285.80(b) adds a requirement that a graywater reuse system must also comply with Chapter 210, Subchapter F since the rules for those systems have been moved to that chapter.

The proposed amendment moves existing §285.81(g) to §285.80(c).

Proposed §285.80(d) requires existing graywater systems to continue to comply with the rules as the rules existed when the graywater system installation was completed. Any alterations to existing graywater systems must meet the requirements of the current rules.

Proposed §285.80(e) prohibits a reduction to OSSFs when using graywater reuse systems unless the OSSF meets the requirements of §285.81.

Proposed §285.80(f) allows only OSSFs permitted for graywater to be connected to a

graywater or combined reuse system. The proposed rule allows a combined reuse system to be connected to an OSSF permitted for graywater only and requires the alternative onsite water to be diverted prior to the connection. The proposed rule prohibits an alternative water reuse system from being connected to an OSSF. The proposed rule provides the piping requirements for connecting graywater to an OSSF.

§285.81, Criteria for Disposal of Graywater

The commission proposes to repeal §285.81 and replace it with a proposed new §285.81. The requirements of the repealed section are being incorporated into Chapter 210, Subchapter F, in a concurrent rulemaking.

Proposed new §285.81 is titled, "OSSF Reduction for Single Family Residences with a Graywater Reuse System or Combined Reuse System." Proposed new §285.81 provides technical requirements for the design, permitting, and operation of OSSFs serving single family residences which have a reduction based on the presence of a graywater reuse system or a combined reuse system. The proposed rule is limited to single family residences based on the limitations of statutory language in THSC, §366.012(a)(2)(B). Additionally, from a technical perspective, graywater generation proportions from a residence are relatively well understood and defined. However, non-residence proportions of graywater are not as well defined and are subject to varying patterns of wastewater generation over time as building activity changes. This uncertain nature of present and future graywater generation in non-residences does not lend itself to OSSF reductions.

Proposed new §285.81(a) clarifies that graywater and combined reuse systems are authorized without a permit. However, OSSFs which are reduced based on the presence of a graywater or combined reuse system require a permit and submission of planning materials.

Proposed new §285.81(b) provides the allowable sizing reduction to the OSSF disposal field. The reductions outlined in Figure: 30 TAC §285.841(b) were estimated using data contained in Table 4.2 of *Design Manual, On-Site Wastewater Treatment and Disposal Systems (EPA/625/1-80/012) October 1980*.

Proposed new §285.81(c) provides that a qualified professional plumber is responsible for documenting which sewage sources will be entering the OSSF.

Proposed new §285.81(d) and Figure: 30 TAC §285.81(d) provide the design organic strength of the wastewater entering the OSSF. The numbers are based on the assumptions that sewage containing all blackwater and graywater sources within a residence will be 300 milligrams per liter five-day bio chemical oxygen demand (mg/l BOD_5) and all graywater sources have no BOD_5 concentration.

Proposed new §285.81(e) and (f) establish the qualifications needed to design OSSFs in this section and the BOD_5 effluent quality that must be achieved by the reduced OSSF. The requirements are consistent with previously adopted sections of Chapter 285.

Proposed new §285.81(g) requires property owners to set aside an area for future OSSF expansion should the property owner abandon the graywater or combined reuse system at a later date or if required by the OSSF permitting authority to expand the OSSF. The area must meet the setbacks required by §285.91(10) and shall not be used for surface improvements.

Proposed new §285.81(h) prohibits property owners from applying graywater or alternative onsite water to the surface of their reduced OSSF disposal field. This action can overload the OSSF disposal area.

Proposed new §285.81(i) prohibits any physical connection between the graywater or combined reuse system and the OSSF since the OSSF is not designed to receive graywater.

Proposed new §285.81(j) requires three days of graywater storage when a graywater or combined reuse system is used in combination with a reduced OSSF. The requirement for storage is necessary so the property owner will not apply graywater during saturated landscape conditions.

Proposed new §285.81(k) provides a mechanism to alert buyers, upon transfer of the property, of the limitations of the OSSF and their responsibilities for operating the OSSF and the graywater or combined reuse system.

Proposed new §285.81(l) requires that, at the discretion of the OSSF permitting authority,

a property owner convicted or found in violation of any statute for improperly operating their graywater or combined reuse system shall expand their OSSF and have it permitted to dispose of graywater.

Fiscal Note: Costs to State and Local Government

Jeffrey Horvath, Analyst in the Chief Financial Officer Division, determined that for the first five-year period the proposed rules are in effect, no fiscal implications are anticipated for the agency and for other units of state or local government as a result of the administration or enforcement of the proposed rules.

The proposed rules would implement HB 1902, 84th Texas Legislature, 2015. The bill requires TCEQ to develop standards to allow the reuse of graywater for toilet and urinal flushing. The bill also creates a new regulatory classification for "alternative onsite water" which is defined as "rainwater, air-conditioning condensate, foundation drain water, storm water, cooling tower blowdown, swimming pool backwash and drain water, reverse osmosis reject water, or any other source of water considered appropriate by the commission." The bill directs TCEQ to develop similar standards for the reuse of this new source of water similar to graywater.

The bill allows an adjustment in the drainfield size of an OSSF if used in conjunction with a graywater reuse system and requires TCEQ to develop a regulatory guidance manual to explain the graywater and alternative onsite water regulations.

The commission proposes to repeal §285.81 and replace it with a new §285.81. The requirements of the repealed section are proposed to be incorporated into Chapter 210, Subchapter F in a concurrent rulemaking. The proposed new §285.81 provides technical requirements for the design, permitting, and operation of OSSFs serving single family residences which have a reduction based on the presence of a graywater reuse system or a combined reuse system. The proposed rule is limited to single family residences based on the limitations of statutory language in THSC, §366.012(a)(2)(B).

There are no additional permits required by the proposed rulemaking. A permit will be issued for the OSSF no matter whether the homeowner applies for a reduced OSSF or chooses a non-reduced OSSF. Any permits or inspections by local authorities will be similar for either a reduced or non-reduced OSSF. Therefore, no fiscal implications are anticipated for the agency or other units of state and local government.

The proposed rulemaking offers an option of a reduced OSSF if a single family residential property owner has a graywater system which is in compliance with Chapter 210, Subchapter F. This is strictly an option to the property owner and, therefore, will not result in required additional costs.

A regulatory guidance manual to explain the graywater and alternative onsite water regulations will be developed after adoption of this rulemaking.

Public Benefits and Costs

Mr. Horvath also determined that for each year of the first five years the proposed rules are in effect, the public benefit anticipated from the changes seen in the proposed rulemaking will be compliance with state law and the potential for a reduction in the demand for potable water that could assist the state in meeting future water supply needs.

No fiscal implications are anticipated for businesses or individuals as a result of the administration and enforcement of the proposed rules. The proposed rulemaking provides for the operation of a reduced OSSF as an option for certain private single family OSSF owners.

Proposed new §285.81 provides technical requirements for the design, permitting, and operation of OSSFs serving single family residences which have a reduction based on the presence of a graywater reuse system or a combined reuse system. The proposed rule is limited to single family residences based on the limitations of statutory language in THSC, §366.012(a)(2)(B).

Small Business and Micro-Business Assessment

No adverse fiscal implications are anticipated for small or micro-businesses as a result of the proposed rules. The proposed rules do not impose any new requirements for any business or individual. The design, permitting, and operation of OSSFs serving single family residences which have a reduction based on the presence of a graywater reuse

system or a combined reuse system is optional. If a business or individual wants to reuse alternative onsite water or graywater and reduce the drainfield for their OSSF, they would be required to comply with the requirements in the proposed rules.

Small Business Regulatory Flexibility Analysis

The commission reviewed this proposed rulemaking and determined that a small business regulatory flexibility analysis is not required because the proposed rules are necessary in order to comply with state law and are not expected to result in adverse fiscal implications for small or micro-businesses.

Local Employment Impact Statement

The commission reviewed this proposed rulemaking and determined that a local employment impact statement is not required because the proposed rules do not adversely affect a local economy in a material way for the first five years that the proposed rules are in effect.

Draft Regulatory Impact Analysis Determination

TCEQ reviewed the proposed rulemaking in consideration of the regulatory analysis of major environmental rules required by Texas Government Code, §2001.0225, and determined that the rulemaking is not subject to Texas Government Code, §2001.0225(a) because it does not meet the definition of a "major environmental rule" as defined in Texas Government Code, §2001.0225(g)(3). The following is a summary of that review.

Texas Government Code, §2001.0225 applies to a "major environmental rule" adopted by a state agency, the result of which is to exceed standards set by federal law, exceed express requirements of state law, exceed requirements of delegation agreements between the state and the federal government to implement a state and federal program, or adopt a rule solely under the general powers of the agency instead of under a specific state law. A "major environmental rule" is a rule, the specific intent of which is to protect the environment or reduce risks to human health from environmental exposure and that may adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state.

As the Author's/Sponsor's Statement of Intent makes clear, the 84th Texas Legislature, 2015, enacted HB 1902 with the aim of lessening Texas' demand for freshwater resources by encouraging and expanding the allowable uses of graywater and other recycled water. By updating decades-old statutory provisions governing graywater disposal and reuse with new technologies and systems that expand the possibilities for safe reuse of graywater on commercial, industrial, and domestic properties, the statutory changes from HB 1902 would ideally result in less demand for freshwater resources for water needs that do not require freshwater standards. More specifically, the Statement of Intent articulates that “by clarifying the existing {Texas Health and Safety Code (THSC)} standards and expanding the scope and uses of graywater and alternative onsite water {and ensuring that the Texas Water Code conforms to these changes}, C.S.H.B. 1902 could act as another part of the solution to Texas’ water challenges."

To encourage the use of graywater systems, which helps to prevent a health and safety crisis due to a lack of water for drinking and other essential purposes, HB 1902 amends the THSC to direct TCEQ to adopt rules that allow for an adjustment in the size of a drainfield of an OSSF if used in conjunction with a graywater reuse system. Additionally, the proposed rulemaking adds language to §285.80 for terms for graywater reuse systems and combined reuse systems that are consistent with proposed amendments in a concurrent rulemaking involving Chapter 210, Subchapter F. As part of the same rulemaking, the commission proposes to repeal §285.81 and replace it with a new §285.81. The requirements of the repealed section are being incorporated into Chapter 210, Subchapter F, in a concurrent rulemaking.

Therefore, the specific intent of the proposed rulemaking, which amends and repeals TCEQ rules, is to implement the legislative amendments in HB 1902, which eliminates duplicate provisions with other chapters in the title, and requires the commission to adopt rules to allow an adjustment in the size of a drainfield of an OSSF if used in conjunction with a graywater or combined reuse system. All of which aim to prevent a health and safety crisis due to a lack of water for drinking and other essential purposes. The proposed rulemaking does not adversely affect, in a material way, the economy, a section of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state. Accordingly, the commission concludes that the proposed rulemaking does not meet the definition of a "major environmental rule."

Even if this rulemaking was a "major environmental rule," this rulemaking meets none of the criteria in Texas Government Code, §2001.0225, for the requirement to prepare a full Regulatory Impact Analysis. First, this rulemaking is not governed by federal law. Second, it does not exceed state law but rather creates new minimum standards and corresponding processes under state law to ensure efficient regulatory oversight, while comprehensively protecting the state's natural resources. Third, it does not come under a delegation agreement or contract with a federal program, and finally, it is not being proposed under the TCEQ's general rulemaking authority. This rulemaking is being proposed under a specific piece of state legislation from HB 1902, Texas Legislature, 2015, which directs TCEQ to undertake this rulemaking in an effort to reasonably fulfill an obligation mandated by state law to implement the OSSF program under THSC, Chapter 366.

Therefore, the commission does not adopt the rule solely under the commission's general powers. The commission invites public comment on the Draft Regulatory Impact Analysis Determination.

Written comments on the Draft Regulatory Impact Analysis Determination may be submitted to the contact person at the address listed under the Submittal of Comments section of this preamble.

Takings Impact Assessment

TCEQ evaluated the proposed rulemaking and performed an analysis of whether it constitutes a taking under Texas Government Code, Chapter 2007, which applies to governmental actions which affect private property. The following is a summary of that analysis.

The specific purpose of the proposed rulemaking is to implement the legislative amendments in HB 1902, which eliminates duplicate provisions with other chapters in 30 TAC and directs the commission to adopt rules to allow an adjustment in the size of a drainfield of an OSSF if used in conjunction with a graywater or combined reuse system. All of which aim to prevent a health and safety crisis due to a lack of water for drinking and other essential purposes. The proposed rulemaking substantially advances this stated purpose by proposing language in amended Chapter 285 to expand and encourage the allowable indoor and outdoor use and reuse of treated graywater and alternative onsite water by allowing for a reduction in the size of an OSSF's drainfield.

Promulgation and enforcement of the proposed rules will not be a statutory or constitutional taking of private real property because, as the commission's analysis indicates, Texas Government Code, Chapter 2007, does not apply to these proposed rules because the rules do not impact private real property. Additionally, the public has access to vast quantities of graywater as the public themselves are the producers of their own graywater. Specifically, the proposed rulemaking does not apply to or affect any landowner's rights in any private real property because it does not burden

(constitutionally), restrict, or limit any landowner's right to real property or reduce any property's value by 25% or more beyond that which would otherwise exist in the absence of the regulations. For graywater, there are no real property rights that have been granted for use of an individual's own graywater. These actions will not affect or burden private real property rights because the graywater and alternative onsite water are generated onsite and used onsite by the same individual.

Even if there were real property rights issued for graywater produced by the public, the commission's analysis indicates that Texas Government Code, Chapter 2007, does not apply to these proposed rules. Texas Government Code, §2007.003(b)(4), (11)(B), and (13)(A) - (C) state that the chapter does not apply to governmental actions reasonably taken to fulfill an obligation mandated by state law, to regulate OSSF, to respond a real and substantial threat to public health and safety, to significantly advance the health and safety purpose, and to not impose a greater burden than is necessary to achieve the health and safety purpose. All of the above exemptions apply to the proposed rulemaking. This rulemaking is proposed pursuant to the specific requirements of THSC, Chapter 366, which requires the commission to adopt rules to protect the environment and the health and safety of Texas citizens by encouraging use of graywater or combined reuse systems by amending the OSSF regulations to allow for a reduction in the size of an OSSF's drainfield. The proposed rulemaking encourages the use of graywater or combined reuse systems to respond to a real and substantial threat to public health and safety in the form of a lack of water for drinking and other essential purposes and encouraging use of graywater or combined reuse systems advances a health and safety purpose by

making efforts to address Texas' water challenges. Finally, the proposed rulemaking imposes no greater burden than is necessary to achieve the health and safety purpose, the proposed rules are similar to the predecessor rules for OSSFs and do not establish a greater burden for most types of systems. Because this is an action that is taken in response to a real and substantial threat to public health and safety; is designed to significantly advance the health and safety purpose; and does not impose a greater burden than is necessary to achieve the health and safety purpose, this action is exempt according to the provisions of Texas Government Code, §2007.003. Lack of water for drinking and other essential purposes would be a health and safety crisis. This rulemaking could help to lessen the demand for freshwater resources for water needs that do not require freshwater standards, resulting in more drinking water and water for essential purposes.

Consistency with the Coastal Management Program

The commission reviewed the proposed rulemaking and found that the rulemaking is subject to the Texas Coastal Management Program (CMP) in accordance with the Coastal Coordination Act, Texas Natural Resources Code, §§33.201 *et seq.*, and therefore must be consistent with all applicable CMP goals and policies. The commission conducted a consistency determination for the proposed rules in accordance with Coastal Coordination Act Implementation Rules, 31 TAC §505.22 and found the proposed rulemaking is consistent with the applicable CMP goals and policies.

The applicable goals of the CMP are: to protect, preserve, restore, and enhance the

diversity, quality, quantity, functions, and values of coastal natural resource areas; to ensure sound management of all coastal resources by allowing for compatible economic development and multiple human uses of the coastal zone; to ensure and enhance planned public access to and enjoyment of the coastal zone in a manner that is compatible with private property rights and other uses of the coastal zone; and to balance these competing interests.

The specific CMP policies applicable to these proposed rules include Nonpoint Source Water Pollution and require, under the THSC, Chapter 366 (governing on-site sewage disposal systems) that on-site disposal systems be located, designed, operated, inspected, and maintained so as to prevent releases of pollutants that may adversely affect coastal waters. The proposed rules will ensure that OSSFs will perform properly when receiving only blackwater and, therefore, the rules are consistent with the CMP policies.

Promulgation and enforcement of these rules will not violate or exceed any standards identified in the applicable CMP goals and policies because the proposed rules are consistent with these CMP goals and policies, because these rules do not create or have a direct or significant adverse effect on any coastal natural resource areas, and because the proposed rules do not relax current treatment or disposal standards.

Written comments on the consistency of this rulemaking may be submitted to the contact person at the address listed under the Submittal of Comments section of this preamble.

Announcement of Hearing

The commission will hold a public hearing on this proposal in Austin on August 16, 2016, at 2:00 p.m. in Building E, Room 201S, at the commission's central office located at 12100 Park 35 Circle. The hearing is structured for the receipt of oral or written comments by interested persons. Individuals may present oral statements when called upon in order of registration. Open discussion will not be permitted during the hearing; however, commission staff members will be available to discuss the proposal 30 minutes prior to the hearing.

Persons who have special communication or other accommodation needs who are planning to attend the hearing should contact Sandy Wong, Office of Legal Services at (512) 239-1802 or 1-800-RELAY-TX (TDD). Requests should be made as far in advance as possible.

Submittal of Comments

Written comments may be submitted to Ms. Sherry Davis, MC 205, Office of Legal Services, Texas Commission on Environmental Quality, P.O. Box 13087, Austin, Texas 78711-3087, or faxed to (512) 239-4808. Electronic comments may be submitted at: *http://www1.tceq.texas.gov/rules/ecomments/*. File size restrictions may apply to comments being submitted via the eComments system. All comments should reference Rule Project Number 2015-028-210-OW. The comment period closes on August 22, 2016. Copies of the proposed rulemaking can be obtained from the commission's website at *http://www.tceq.texas.gov/rules/propose_adopt.html*. For further information, please

contact James McCaine, Program Support Section, (512) 239-4777.

SUBCHAPTER H: DISPOSAL OF GRAYWATER

§285.80 and §285.81

Statutory Authority

The amended section and new section are proposed under Texas Water Code (TWC), §5.013 and §5.102, which establish the commission's general jurisdiction and provides general powers of the commission over other areas of responsibility as assigned to the commission under the TWC; TWC, §5.103 and §5.105, which require the commission to adopt any rule or policy necessary to carry out its powers and duties under the TWC and other laws of the state; TWC, §5.120, which requires the commission to administer the law so as to promote judicious use and maximum conservation and protection of the environment and the natural resources of the state; and TWC, §26.011, which provides the commission with the authority to establish the level of quality to be maintained in, and to control the quality of, the water in the state by subjecting waste discharges or impending waste discharges to reasonable rules or orders adopted or issued by the Texas Commission on Environmental Quality in the public interest. Lastly, Texas Health and Safety Code (THSC), §341.039 and §366.012, which specifically direct the commission to adopt and implement rules related to the expanded use of graywater and alternative onsite water; THSC, §341.039, which directs the commission to adopt and implement minimum standards for the indoor and outdoor use and reuse of treated graywater and alternative onsite water; THSC, §366.012, which directs the commission to adopt rules to allow for an adjustment in the size required of an on-site sewage disposal system if the system is used in conjunction with a graywater or combined reuse system that complies

with the rules adopted under THSC, §341.039; and THSC, §366.011,which establishes the commission's authority over the location, design, construction, installation, and proper functioning of on-site sewage disposal systems.

The sections are adopted under the authority granted to the TCEQ by the Texas Legislature in THSC, Chapter 366. Specific statutory authorization derives from House Bill (HB) 1902, which amended TWC, §26.0311, and THSC, §341.039 and §366.012(a), relating to Standards for Control of Graywater, Standards for Graywater and Alternative Onsite Water, and Rules Concerning On-Site Disposal Sewage Disposal Systems.

The amendments implement the statutory amendments of HB 1902.

§285.80. General Requirements.

(a) For the purpose of this chapter, graywater [Graywater] is defined as wastewater from [:]

[(1)] showers;

[(2)] bathtubs;

[(3)] handwashing lavatories;

[(4)] sinks that are not used for disposal of hazardous or toxic ingredients;

[(5)] sinks that are not used for food preparation or disposal; and

[(6)] clothes-washing machines.

[(b)] Graywater does not include wastewater from the washing of material, including diapers, soiled with human excreta or wastewater that has come in contact with toilet waste.

(b) [(c)] Construction of a graywater reuse system, including storage and disposal systems, must comply with this chapter; Chapter 210, Subchapter F of this title (relating to Use of Graywater and Alternative Onsite Water); and any more stringent requirements of the local permitting authority. For the purposes of this subchapter, a graywater reuse system begins at the graywater stub-out of a single family dwelling.

(c) A graywater reuse system must not create a nuisance or damage the quality of surface water or groundwater. If a graywater reuse system creates a nuisance, threatens human health, or damages the quality of surface water or groundwater, the permitting authority may take action under §285.71 of this title (relating to Authorized Agent Enforcement of OSSFs).

(d) A graywater reuse system shall comply with the requirements of this subchapter as they existed on the date installation was completed. The previous version of this subchapter is continued in effect for this purpose. Any alterations to an existing system must comply with this chapter; Chapter 210, Subchapter F of this title; and any more stringent requirements of the local permitting authority.

(e) No reduction in the size of the on-site sewage facility (OSSF) will be allowed when using a graywater reuse system unless the OSSF meets the conditions and requirements of §285.81 of this title (relating to Criteria for Disposal of Graywater).

(f) If the OSSF has been permitted to receive graywater from a facility and is not a reduced OSSF as described in §285.81 of this title, the graywater from either a graywater reuse system or a combined reuse system authorized under Chapter 210, Subchapter F of this title may, be connected to the OSSF to dispose of the graywater during periods when graywater is not being reused. If the reuse system is a combined reuse system as defined under Chapter 210, Subchapter F of this title, the flows from alternative onsite water sources must be diverted and shall not be allowed to enter the OSSF. Alternative water reuse systems as defined in Chapter 210, Subchapter F of this title, shall not be connected to the OSSF as OSSFs are not authorized nor designed to treat or dispose of flows from alternative onsite water sources. The piping connecting the graywater to the OSSF shall meet the applicable requirements of Subchapter D of this chapter (relating to Planning, Construction, and Installation Standards for OSSFs).

§285.81. OSSF Reduction for Single Family Residences with a Graywater Reuse System or a Combined Reuse System.

(a) Graywater reuse systems and combined reuse systems are authorized in Chapter 210, Subchapter F of this title (relating to Use of Graywater and Alternative Onsite Water) without a permit or the submission of planning materials. However, on-site sewage facilities (OSSFs) described in this subsection require a permit and the submission of planning materials.

(b) Effluent disposal system sizing. If the graywater reuse system or combined reuse system serving the single family residence is in compliance with Chapter 210, Subchapter F of this title, the effluent disposal system required in §285.33 of this title (relating to Criteria for Effluent Disposal Systems) may be reduced in accordance with Table I in Figure: 30 TAC §285.81(b) of this section.

Figure: 30 TAC §285.81(b)

Table I. Percent Reduction

Sewage sources entering the graywater reuse system or combined reuse system	**Percent reduction to effluent disposal system required in §285.33 of this title**
Clothes-washing machine only	20

Showers, bathtubs, hand-washing lavatories, and sinks that are not used for the disposal of hazardous or toxic ingredients	30
Clothes-washing machines, showers, bathtubs, hand-washing lavatories, and sinks that are not used for the disposal of hazardous or toxic ingredients	50

(c) Verification of plumbing entering the OSSF. A licensed master plumber shall document which sewage sources will be entering the OSSF. The documentation must be sealed, dated, and signed and be provided with the planning materials submitted to the OSSF permitting authority.

(d) Increased wastewater strength. When graywater is removed from the total sewage stream, the remaining sewage stream entering the OSSF will have a higher organic strength. The resulting increase in sewage strength shall be determined in accordance with Table II in Figure: 30 TAC §285.81(d) of this section.

Figure: 30 TAC §285.81(d)

Table II. Adjusted Organic Strength

Sewage sources entering a graywater reuse system or a combined reuse system	**Five-day Biochemical Oxygen Demand (BOD_5) design strength for sewage entering on-site**

	sewage facilities milligrams per liter (mg/l)
Clothes-washing machine only	375
Showers, bathtubs, hand-washing lavatories, and sinks that are not used for the disposal of hazardous or toxic ingredients	430
Clothes-washing machines, showers, bathtubs, hand-washing lavatories, and sinks that are not used for the disposal of hazardous or toxic ingredients	600

(e) If the effluent disposal system does not require secondary treatment, either a professional sanitarian or a professional engineer shall demonstrate that the proposed treatment system will reduce the effluent quality down to 140 milligrams per liter five-day biochemical oxygen demand (mg/l BOD_5) prior to entering the effluent disposal system.

(f) If the effluent disposal system requires secondary treatment, then a professional engineer shall demonstrate that the proposed treatment system will reduce the effluent quality to the levels outlined in §285.32(e) of this title (relating to Criteria for Sewage Treatment Systems).

(g) If the effluent disposal system is reduced based on the presence of a graywater reuse system or a combined reuse system, a reserve area equivalent to the reduced area

shall be shown to be available for future construction of a disposal field should the graywater reuse system or combined reuse system be abandoned at a later date. The reserve area shall meet the setbacks required by §285.91(10) of this title (relating to Tables) and shall not be used for any surface improvements.

(h) Graywater or alternative onsite water, as defined in Chapter 210, Subchapter F of this title, shall not be applied to the surface of a reduced effluent disposal system.

(i) The reduced effluent disposal system is not sized to accommodate graywater. Therefore, there shall not be any physical connection between the graywater reuse system or the combined reuse system and any part of the OSSF without authorization from the OSSF permitting authority.

(j) In addition to the requirements outlined in Chapter 210, Subchapter F of this title, a graywater reuse system or a combined reuse system used in association with a reduced effluent disposal system under this section must have a storage tank capable of storing a volume of three days of graywater. The storage is necessary to prevent application of graywater during periods when the landscape is saturated.

(k) Before a license to operate is issued for a reduced effluent disposal system allowed under this section, an affidavit shall be properly filed and recorded in the deed records of the county. The affidavit must include the owner's full name, the legal description of the property, a statement that the permit for the OSSF is transferred to the

new owner upon transfer of the property, a statement that the effluent disposal system is reduced due to the presence of a graywater reuse system or a combined reuse system, a statement that the specified reserve area shall not contain surface improvements, and a statement that the graywater reuse system or combined reuse system cannot be connected to the OSSF without obtaining a permit from the OSSF permitting authority.

(l) If the property owner of a graywater reuse system or a combined reuse system on a property served by a reduced effluent disposal system is convicted under or found in violation of any statute for improperly operating the graywater reuse system or combined reuse system, the OSSF permitting authority may require the graywater to be connected to the OSSF. If the OSSF permitting authority requires the graywater to be connected to the OSSF, the effluent disposal system must be expanded to accommodate all the flow required in §285.91(3) of this title, and the expansion must be permitted by the OSSF permitting authority.

SUBCHAPTER H: DISPOSAL OF GRAYWATER

[§285.81]

Statutory Authority

The repeal is proposed under Texas Water Code (TWC), §5.013 and §5.102, which establish the commission's general jurisdiction and provides general powers of the commission over other areas of responsibility as assigned to the commission under the TWC; TWC, §5.103 and §5.105, which require the commission to adopt any rule or policy necessary to carry out its powers and duties under the TWC and other laws of the state; TWC, §5.120, which requires the commission to administer the law so as to promote judicious use and maximum conservation and protection of the environment and the natural resources of the state; and TWC, §26.011, which provides the commission with the authority to establish the level of quality to be maintained in, and to control the quality of, the water in the state by subjecting waste discharges or impending waste discharges to reasonable rules or orders adopted or issued by the TCEQ in the public interest. Lastly, Texas Health and Safety Code (THSC), §341.039 and §366.012, which specifically direct the commission to adopt and implement rules related to the expanded use of graywater and alternative onsite water; THSC, §341.039, which directs the commission to adopt and implement minimum standards for the indoor and outdoor use and reuse of treated graywater and alternative onsite water; THSC, §366.011, which establishes the commission's authority over the location, design, construction, installation, and proper functioning of on-site sewage disposal systems; and THSC, §366.012, which directs the commission to adopt rules to allow for an adjustment in the

size required of an on-site sewage disposal system if the system is used in conjunction with a graywater or combined reuse system that complies with the rules adopted under THSC, §341.039 and which requires the commission to adopt rules consistent with the policy defined in TWC, §26.0311, and THSC, §341.039 and §366.012, relating to Standards for Control of Graywater, Graywater Standards, and Rules Concerning On-Site Disposal Systems.

Specific statutory authorization derives from House Bill (HB) 1902, which amended TWC, §26.0311, and THSC, §341.039 and §366.012(a).

The repeal implements the statutory amendments of HB 1902.

[§285.81. Criteria for Disposal of Graywater.]

[(a) Permits and inspections are not required for the domestic use of less than 400 gallons of graywater each day if:]

[(1) the graywater originates from a single family dwelling;]

[(2) the graywater system is designed so that 100% of the graywater can be diverted to the owner's on-site sewage facility (OSSF) system during periods of non-use of the graywater system. A graywater system may only be connected to the OSSF system if the following requirements are met.]

[(A) The connection must be in the line between the house stub-out for the OSSF and the OSSF treatment tank.]

[(B) The discharge from the graywater system must enter the OSSF system through two backwater valves or backwater preventers;]

[(3) the graywater is stored in tanks and the tanks:]

[(A) are clearly labeled as nonpotable water;]

[(B) restrict access, especially to children;]

[(C) eliminate habitat for mosquitoes and other vectors;]

[(D) are able to be cleaned; and]

[(E) meet the structural requirements of the 2004 American Water Works Association standards;]

[(4) the graywater system uses piping clearly identified as a nonpotable water conduit, including identification through the use of painted purple pipe, purple

pipe, pipe taped with purple metallic tape, or other methods approved by the commission;]

[(5) the graywater is applied at a rate that will not result in ponding or pooling or will not cause runoff across the property lines or onto any paved surface; and]

[(6) the graywater is not disposed of using a spray distribution system.]

[(b) No reduction in the size of the OSSF system will be allowed when using a graywater system.]

[(c) Builders of single family dwellings are encouraged to:]

[(1) install plumbing in new housing to collect graywater from all allowable sources; and]

[(2) design and install a subsurface graywater system around the foundation of new housing to minimize foundation movement or cracking.]

[(d) Graywater from a graywater system as described in subsection (a) of this section may only be used:]

[(1) around the foundation of new housing to minimize foundation movement or cracking;]

[(2) for gardening;]

[(3) for composting; or]

[(4) for landscaping at a single family dwelling.]

[(e) All aspects of the permitting, planning, construction, operation, and maintenance for any proposed graywater system that does not meet the requirements of subsection (a) of this section must meet the requirements of the remainder of this chapter.]

[(f) The installer of the graywater system must advise the owner of basic operating and maintenance procedures including any effects on the OSSF system.]

[(g) Graywater use must not create a nuisance or damage the quality of surface water or groundwater. If graywater use creates a nuisance or damages the quality of surface water or groundwater, the permitting authority may take action under §285.71 of this title (relating to Authorized Agent Enforcement of OSSFs).]

[(h) Homeowners who have been discharging wastewater from residential clothes-washing machines, otherwise known as laundry graywater, directly onto the ground prior to the effective date of this rule, may continue this discharge under the following conditions.]

[(1) The disposal area shall not create a public health nuisance.]

[(2) Surface ponding shall not occur in the disposal area.]

[(3) The disposal area shall support plant growth or be sodded with vegetative cover.]

[(4) The disposal area shall have limited access and use by residents and pets.]

[(5) Laundry graywater that has been in contact with human or animal waste shall not be discharged on the ground surface and shall be treated and disposed of according to §285.32 and §285.33 of this title (relating to Criteria for Sewage Treatment Systems and Criteria for Effluent Disposal Systems, respectively).]

[(6) Laundry graywater shall not be discharged to an area where the soil is wet.]

[(7) The use of detergents that contain a significant amount of phosphorus, sodium, or boron should be avoided.]

[(8) A lint trap shall be required at the end of the discharge line.]

[(i) Graywater systems that are altered, create a nuisance, or discharge graywater from any source other than clothes-washing machines are not authorized to discharge graywater under subsection (h) of this section.]